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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/744,502	07/13/2001	Victor Rubio Susan	4512/00012	8777

7590

03/31/2003

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EXAMINER

MARX, IRENE

ART UNIT

PAPER NUMBER

1651

10

DATE MAILED: 03/31/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/744,502

Applicant(s)

RUBIO SUSAN ET AL.

Examiner

Irene Marx

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) ____ is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) ____ is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

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The application should be reviewed for errors.

Applicant's election without traverse of Group I, claims 1-6 and 9 and the species SEQ ID NO. 20 of claim 5 is acknowledged. In claim 6, it is unclear which strain(s) are encompassed by SEQ ID NO. 20. Clarification is requested.

Claim 9, dependent on non-elected claim 7, was erroneously included in Group I. The error is regretted. Claim 9 pertains to subject matter which is not encompassed within the elected invention/species comprising a process of use of a strain having an ITSI sequence which is at least 90% homologous with SEQ ID NO. 20. The method of claim 9 pertains to the subject matter of Group II directed to the use of a strain having an ITSI sequence which includes a fragment of at least 10 nucleic acid bases of the elected species. This is an independent and distinct invention from the elected invention.

Claims 1-6 are being examined on the merits. Claims 7-10 and the further species are withdrawn from consideration.

Claims 5 and 6 should be amended to conform to the elected invention.

Claims 1-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1-6 provides for the use of *Rhizoctonia*, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-6 are rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

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Claim Rejections - 35 USC § 112

Claims 5-6 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The invention appears to employ novel strains of *Rhizoctonia* as a biocontrol agent. The written description of that strain and the method of isolating is insufficiently reproducible. Therefore, a deposit for patent purposes is required. The specification discloses at page 10 that certain strains were deposited at CECT under Budapest Treaty conditions on 30 June 1999.

For compliance with the rule, it must be averred that deposited material has been accepted for deposit under the Budapest Treaty on the International Recognition of the Deposit of Microorganisms for the purpose of Patent Procedure (e.g. see 961 OG 21, 1977) and that all restrictions on the availability to the public of the material so deposited will be irrevocably removed upon the granting of a patent. MPEP 2403.

Additionally, the deposit must be referred to in the body of the specification and be identified by deposit (accession) number, date of deposit, name and address of the depository and the complete taxonomic description.

Claims 1-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 is confusing in that it is unclear what is intended by "selected by molecular detection of the ITS ribosomal sequence". This recitation does not indicate whether specific selection parameters are used and which they are. Similarly, in claim 4 it cannot be ascertained how the "ITS1 data" are used in the selection process.

Claim 2 is improper in the use of punctuation in the middle of the claim.

Regarding claim 2, the phrases "and other herbs"; "and other trees", "as well as flowers", for example render the claim(s) indefinite because the claim(s) include(s) elements not actually disclosed (those encompassed by "or other..."), thereby rendering the scope of the claim(s) unascertainable. See MPEP § 2173.05(d).

Claim 3 is confusing and inconsistent in the recitation of multiple "or" within the listing. It is recommended that the "or" between "vegetable" and "fruit" be deleted.

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The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Herr (1988) or Cardoso *et al.* (1987).

The claims are directed to the protection of plants from fungi by using biocontrol with binucleate *Rhizoctonia* selected by molecular detection of the ITS ribosomal sequence.

Herr and Cardoso *et al.* each discloses the protection of plants from fungi by using biocontrol with binucleate *Rhizoctonia*. (See, e.g., Table 5; Tables 2 and 3). Even though the reference is silent as to whether or not the strains used were selected by molecular detection of the ITS ribosomal sequence, it is clear that the binucleate *Rhizoctonia* strains used in the reference are effective in the protection of plants from fungi as claimed. Furthermore, the composition used in the process is claimed as a product-by-process. Since the Patent and Trademark Office is not equipped to manufacture products by the myriad of processes put before it and then obtain prior art products and make comparisons therewith, a lesser burden of proof is required to make out a case of prima facie anticipation for product-by-process claims because of their peculiar nature than when a product is claimed in the conventional manner. MPEP 2113.

Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Herr taken with Cardoso and Boysen *et al.*

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The claims are directed to the protection of plants from fungi by using biocontrol with binucleate *Rhizoctonia* selected by molecular detection of the ITS ribosomal sequence.

Herr and Cardoso *et al.* each discloses the protection of plants from fungi by using biocontrol with binucleate *Rhizoctonia*. (See, e.g., Table 5; Tables 2 and 3). The references are silent as to whether or not the strains used were selected by molecular detection of the ITS ribosomal sequence. However, it is clear that the binucleate *Rhizoctonia* strains used in the reference are effective in the protection of plants from fungi as claimed. Moreover, Boysen *et al.* adequately demonstrate that the technique of molecular detection of the ITS ribosomal sequence is old and well known in the art for the identification and/or selection of *Rhizoctonia*. There is no clear correlation between strains having at least 90% homology to a sequence of SEQ ID NO. 20 and protective properties of biocontrol against fungi.

The Patent and Trademark Office is not equipped to conduct experimentation in order to determine whether or not applicants' cultured strains differ and, if so, to what extent, from the strains discussed in the references. Accordingly, inasmuch as the examiner has established that the prior art strain, which is of the same genus *Rhizoctonia* as that claimed, likewise shares the property of being able to protect plants from pathogenic fungi, she has reasonably demonstrated a reasonable likelihood/possibility that the compared strains are either identical or sufficiently similar that whatever differences exist are not patentably significant. Therefore, the burden of establishing non-obviousness by objective evidence shifted to Applicants.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the claimed invention was made to modify the process of protection of Herr or Cardoso by using strains selected according to the method of Boysen *et al.* for the expected benefit of more predictably identifying binucleate *Rhizoctonia* suitable for biocontrol of fungi on plants.

Thus, the claimed invention as a whole was clearly *prima facie* obvious, especially in the absence of evidence to the contrary.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Irene Marx whose telephone number is 703-308-2922. The examiner can normally be reached on M-F (6:30-3:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Wityshyn can be reached on 703-308-4743. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9306 for regular communications and 703-872-9307 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0926.



Irene Marx
Primary Examiner
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